

# HALLIBURTON

iCem<sup>®</sup> Service

## **EXTRACTION OIL & GAS-EBUS**

### **INTERCHANGE B N35-20-9N**

Job Date: Friday, March 29, 2019

Sincerely,  
Ryan Keeran

## Legal Notice

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## 1.0 Cementing Job Summary

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### 1.1 Executive Summary

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Halliburton appreciates the opportunity to perform the cementing services on the **Interchange B N35-20-9N** cement **Surface** casing job. A pre-job safety meeting was held before the job where details of the job were discussed, potential safety hazards were reviewed, and environmental compliance procedures were outlined.

**Approximately 20 bbls of cement were returned to surface.**

Halliburton maintains a continuous quality improvement process and appreciates any comments or suggestions that you may have. Halliburton again thanks you for the opportunity to perform service work on this well. We hope to be your solutions provider for future projects.

Respectfully,

**Halliburton Fort Lupton**

*The Road to Excellence Starts with Safety*

<b>Sold To #:</b> 369404		<b>Ship To #:</b> 3901403		<b>Quote #:</b>		<b>Sales Order #:</b> 0905578624				
<b>Customer:</b> EXTRACTION OIL & GAS -				<b>Customer Rep:</b> justin						
<b>Well Name:</b> INTERCHANGE B			<b>Well #:</b> N35-20-9N			<b>API/UWI #:</b> 05-014-20773-00				
<b>Field:</b> WATTENBERG		<b>City (SAP):</b> BROOMFIELD		<b>County/Parish:</b> BROOMFIELD		<b>State:</b> COLORADO				
<b>Legal Description:</b> NE SW-10-1S-68W-2509FSL-1690FWL										
<b>Contractor:</b>				<b>Rig/Platform Name/Num:</b> Cartel 41						
<b>Job BOM:</b> 7521 7521										
<b>Well Type:</b> HORIZONTAL OIL										
<b>Sales Person:</b> HALAMERICA\HX38199				<b>Srv Supervisor:</b> Nicholas Ralston						
<b>Job</b>										
<b>Formation Name</b>										
<b>Formation Depth (MD)</b>		<b>Top</b>		<b>Bottom</b>						
<b>Form Type</b>					<b>BHST</b>					
<b>Job depth MD</b>		1600ft			<b>Job Depth TVD</b>					
<b>Water Depth</b>					<b>Wk Ht Above Floor</b>					
<b>Perforation Depth (MD)</b>		<b>From</b>		<b>To</b>						
<b>Well Data</b>										
<b>Description</b>	<b>New / Used</b>	<b>Size in</b>	<b>ID in</b>	<b>Weight lbm/ft</b>	<b>Thread</b>	<b>Grade</b>	<b>Top MD ft</b>	<b>Bottom MD ft</b>	<b>Top TVD ft</b>	<b>Bottom TVD ft</b>
Casing		9.625	8.921	36			0	1600		
Open Hole Section			13.5				0	1600		
<b>Tools and Accessories</b>										
<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>	<b>Depth ft</b>		<b>Type</b>	<b>Size in</b>	<b>Qty</b>	<b>Make</b>	
Guide Shoe	9.625			1600		Top Plug	9.625	1	HES	
Float Shoe	9.625					Bottom Plug	9.625		HES	
Float Collar	9.625					SSR plug set	9.625		HES	
Insert Float	9.625					Plug Container	9.625	1	HES	
Stage Tool	9.625					Centralizers	9.625		HES	
<b>Fluid Data</b>										
<b>Stage/Plug #: 1</b>										
<b>Fluid #</b>	<b>Stage Type</b>	<b>Fluid Name</b>	<b>Qty</b>	<b>Qty UoM</b>	<b>Mixing Density lbm/gal</b>	<b>Yield ft<sup>3</sup>/sack</b>	<b>Mix Fluid Gal</b>	<b>Rate bbl/min</b>	<b>Total Mix Fluid Gal</b>	
1	Red Dye Spacer	Red Dye Spacer	50	bbl	8.33			4		

Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
2	SwiftCem	SWIFTCEM (TM) SYSTEM	550	sack	13.5	1.74		8	9.2	
9.20 Gal		<b>FRESH WATER</b>								
Fluid #	Stage Type	Fluid Name	Qty	Qty UoM	Mixing Density lbm/gal	Yield ft <sup>3</sup> /sack	Mix Fluid Gal	Rate bbl/min	Total Mix Fluid Gal	
3	Fresh Water	Fresh Water	120.4	bbl	8.33			10		
Cement Left In Pipe		Amount	44ft	Reason			Shoe Joint			
Mix Water:		Mix Water Chloride:			Mix Water Temperature:					
Cement Temperature:		Plug Displaced by:			Disp. Temperature:					
Plug Bumped?		Yes	Bump Pressure:			Floats Held? <b>Yes</b>				
Cement Returns:		20 bbl	Returns Density:			Returns Temperature:				
Comment										

## 2.0 Real-Time Job Summary

## 2.1 Job Event Log

Type	Seq. No.	Activity	Graph Label	Date	Time	Source	DH Density (ppg)	Comb Pump Rate (bbl/min)	DS Pump Press (psi)	Comments
Event	1	Call Out	Call Out	3/29/2019	00:00:00	USER				CALLED OUT FOR EXTRACTION INTERSECTION B 9 5/8 SURFACE ON LOCATION 0400
Event	2	Other	Other	3/29/2019	00:30:00	USER				ALREADY ON LOCATION FROM PREVIOUS JOB GOT ALL EQUIPMENT
Event	3	Arrive At Loc	Arrive At Loc	3/29/2019	04:00:00	USER				GOT NEW NUMBERS FROM JUSTIN TD 1685 TP 1652 OH 13.5 SJ 44 W 36# G J-55 WATER STILL GOOD
Event	4	Other	Other	3/29/2019	05:00:00	USER				RIG PULLING DRILL PIPE
Event	5	Pre-Rig Up Safety Meeting	Pre-Rig Up Safety Meeting	3/29/2019	08:00:00	USER				DISCUSS RIG UP JSA WITH CREW
Event	6	Rig-Up Equipment	Rig-Up Equipment	3/29/2019	08:10:00	USER				
Event	7	Start Job	Start Job	3/29/2019	10:27:08	COM5	0.00	0.00	5.00	PUT CMT HEAD ON CASING GET STAND PIPE HOOKED UP
Event	8	Test Lines	Test Lines	3/29/2019	10:36:10	COM5	8.20	0.00	5.00	TEST K/O 500 HIGH 2000 PSI BOTH TEST GOOD
Event	9	Pump Spacer 1	Pump Spacer 1	3/29/2019	10:45:59	COM5	8.20	0.00	19.00	PUMP 10 BBL RED DYE FRESH WATER @ 4 BPM 140 PSI
Event	10	Pump Cement	Pump Cement	3/29/2019	10:50:11	COM5	12.40	5.40	228.00	PUMP 550 SKS 170 BBL @ 13.5 PPG @ 8 BPM 240 PSI

Event	11	Drop Top Plug	Drop Top Plug	3/29/2019	11:17:53	COM5	13.65	9.30	132.00	SHUTDOWN DROP TOP PLUG
Event	12	Pump Displacement	Pump Displacement	3/29/2019	11:19:37	COM5	10.74	2.00	-4.00	PUMP 124 BBL FRESH WATER @ 10 BPM @ 220 PSI
Event	13	Other	Other	3/29/2019	11:34:00	COM5	8.58	5.00	455.00	BUMP PLUG @ 500 PSI TOOK TO 1174 HELD 1 MIN CHECK FLOATS GOT 1/2 BBL BACK TO TRUCK HAD 20 BBL CMT TO SURFACE
Event	14	End Job	End Job	3/29/2019	11:36:39	COM5	8.56	0.00	14.00	WASH OUT RIG CELLAR
Event	15	Pre-Rig Down Safety Meeting	Pre-Rig Down Safety Meeting	3/29/2019	12:07:21	USER				DISCUSS RIG DOWN JSA WITH CREW AND WAIT FOR RIG TO SKID TO NEXT HOLE



## 3.0 Job Chart

### 3.1 Job Chart

